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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,113	02/18/2004	Clemens Johannes Vroome	A-3904	1963

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EXAMINER	
CULLER, JILL E	

ART UNIT	PAPER NUMBER
2854	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/781,113	VROOME, CLEMENS JOHANNES	
	Examiner	Art Unit	
	Jill E. Culler	2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 April 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18 and 20-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18 and 20-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2, 5, 7, 8, 10-15 and 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,058,844 to Niemiec in view of U.S. Patent No. 5,156,312 to Kurie, U.S. Patent No. 3,238,869 to West et al., and U.S. Patent No. 6,832,831 to Shima et al.

With respect to claims 1 and 5, Niemiec teaches a web-fed rotary printing press, in the form of a web-fed rotary offset press, comprising: at least one press cylinder, 16, for printing a paper web, 14, conveyed at a controllable first tensile stress; a dryer, 18, disposed downstream of said press cylinder, said dryer guiding the paper web along a path; a first pull roll, 20, disposed downstream of said dryer for conveying the paper web along the path with a second tensile stress, and an apparatus for driving said pull roll at a controllable rotational speed which sets said second tensile stress.

Niemiec does not teach said dryer including a plurality of nozzle bars disposed on both sides of the web guiding the web along a meander-like path, the nozzle bars being spaced apart and offset from one another, an apparatus downstream of the press cylinder and upstream of the dryer for separating the paper web from said press cylinder during a normal printing operation, said separating of the paper web from said

press cylinder being decoupled from the conveying of the paper web along the path, or a controller coupled to said at least one press cylinder and to said second apparatus, said controller setting said first tensile stress and said second tensile stress such that said second tensile stress is less than said first tensile stress.

Kurie teaches a dryer including a plurality of nozzle bars, 16, disposed on both sides of a web, guiding the web along a meander-like path, the nozzle bars being spaced apart and offset from one another. See column 4, lines 1-18, column 6, lines 41-61 and Fig. 6.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the dryer of Niemiec to include nozzle bars, as taught by Kurie, in order to effectively move the web through the dryer.

West et al. teaches an apparatus, 160, 161, disposed downstream of a press cylinder, 30, for separating a web from the press cylinder decoupled from the conveying of the web. See column 10, lines 3-16.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the invention of Niemiec to have a separating apparatus, as taught by West et al. in order to improve the transition of the web from the last press cylinder into the dryer and minimize potential damage to the web.

Shima et al. teaches a printing press comprising a printing unit, PU, for printing a paper web, 1, conveyed at a controllable first tensile stress, a dryer, HU, disposed downstream of said printing unit, said dryer guiding the web along a path, an apparatus, 54, for conveying the paper web along a path through said dryer at a controllable

second tensile stress, and a controller, 7, coupled to said printing unit and said conveying apparatus, said controller setting said first tensile stress and said second tensile stress such that said second tensile stress is less than said first tensile stress. See column 6, line 56 – column 7, line 21, column 11, lines 32-67, column 15, lines 3-58 and Fig. 3.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the apparatus of Niemiec to have a controller controlling the first and second tensile stresses, as taught by Shima et al., so that the drying of the web can be better controlled.

With respect to claim 2, although Niemiec, Kurie, West et al., and Shima et al. do not explicitly teach controlling the second tensile stress to be equal to or less than 10% of said first tensile stress, one having ordinary skill in the art would recognize that the acceptable tensile stress would be highly dependent upon the type of material used in the paper web and therefore the ideal values could be best determined through routine experimentation.

With respect to claims 7, 10-13, and 23 Niemiec teaches a web-fed rotary printing press, in the form of a web-fed rotary offset press, comprising: at least one press cylinder, 16, in the form of a driven, rotating element, for printing a paper web, 14, conveyed at a controllable first tensile stress; a dryer, 18, disposed downstream of said press cylinder, said dryer guiding the paper web along a path; and a first pull roll, 20, which is a driven, rotating cooling roll, disposed downstream of said dryer for conveying the paper web along the path under a second tensile stress.

Niemiec does not teach said dryer including a plurality of nozzle bars disposed on both sides of the web guiding the web along a meander-like path, the nozzle bars being spaced apart and offset from one another, an apparatus downstream of the press cylinder and upstream of the dryer for separating the paper web from said press cylinder during a normal printing operation, or a second pull roll, in the form of a driven, rotating element, disposed downstream of said press cylinder and upstream of said dryer for controllably setting a third tensile stress on the paper web between the at least one press cylinder and said second pull roll.

Kurie teaches a dryer including a plurality of nozzle bars, 16, disposed on both sides of a web, guiding the web along a meander-like path, the nozzle bars being spaced apart and offset from one another. See column 4, lines 1-18, column 6, lines 41-61 and Fig. 6.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the dryer of Niemiec to include nozzle bars, as taught by Kurie, in order to effectively move the web through the dryer.

West et al. teaches an apparatus, 160, 161, disposed downstream of a press cylinder, 30, for separating a web from the press cylinder. See column 10, lines 3-16.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the invention of Niemiec to have a separating apparatus, as taught by West et al. in order to improve the transition of the web from the last press cylinder into the dryer and minimize potential damage to the web.

Shima et al. teaches a printing press comprising a printing unit, PU, for printing a paper web, 1, conveyed at a controllable first tensile stress, a dryer, HU, disposed downstream of said printing unit, said dryer guiding the web along a path, a second pull roll, 31, disposed downstream of said printing unit and upstream of said dryer for controlling a tensile stress between said printing unit and said second pull roll, an apparatus, 54, for conveying the paper web along a path through said dryer at a controllable second tensile stress, and a controller, 7, coupled to said printing unit and said conveying apparatus, said controller setting said first tensile stress and said second tensile stress such that said second tensile stress is less than said first tensile stress. See column 6, line 56 – column 7, line 21, column 11, lines 32-67, column 15, lines 3-58 and Fig. 3.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the apparatus of Niemiec to have a controller controlling the first and second tensile stresses, as taught by Shima et al., so that the drying of the web can be better controlled.

With respect to claims 8 and 24-25, although Niemiec, Kurie, West et al., and Shima et al. do not explicitly teach controlling the second tensile stress to be equal to or less than 10% of said first tensile stress, one having ordinary skill in the art would recognize that the acceptable tensile stress would be highly dependent upon the type of material used in the paper web and therefore the ideal values could be best determined through routine experimentation.

With respect to claims 14-15 Niemiec teaches a method for treating a printed material web in a printing material web in a web-fed rotary printing press which further comprises: feeding a paper web to a press cylinder under a first controllable tensile stress, printing on the paper web using the press cylinder, and conveying the paper web along a drying path under a second controllable tensile stress of the paper web.

Niemiec does not teach the drying path being established by a plurality of nozzle bars disposed on both sides of the web guiding the web along a meander-like path, the nozzle bars being spaced apart and offset from one another, that the second controllable tensile stress of the paper web is controllably set to be equal to or less than 10% of the first controllable tensile stress, or separating the paper web from the press cylinder during a normal printing operation, the separating of each paper web from the press cylinder being decoupled from the conveying of the paper web along the path, wherein the second controllable tensile stress is set to a value suitable for conveying the paper web after separation from the press cylinder.

Kurie teaches a dryer having a drying path established by a plurality of nozzle bars, 16, disposed on both sides of the web guiding the web along a meander-like path, the nozzle bars being spaced apart and offset from one another. See column 4, lines 1-18, column 6, lines 41-61 and Fig. 6.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the dryer of Niemiec to include nozzle bars, as taught by Kurie, in order to effectively move the web through the dryer.

West et al. teaches a method of using an apparatus, 160, 161, disposed downstream of a press cylinder, 30, for separating a web from the press cylinder decoupled from the conveying of the paper web along the path. See column 10, lines 3-16.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the method of Niemiec to include a separating step, as taught by West et al. in order to improve the transition of the web from the last press cylinder into the dryer and minimize potential damage to the web.

Shima et al. teaches a printing press comprising a printing unit, PU, for printing a paper web, 1, conveyed at a controllable first tensile stress, a dryer, HU, disposed downstream of said printing unit, said dryer guiding the web along a path, an apparatus, 54, for conveying the paper web along a path through said dryer at a controllable second tensile stress, and a controller, 7, coupled to said printing unit and said conveying apparatus, said controller setting said first tensile stress and said second tensile stress such that said second tensile stress is less than said first tensile stress. See column 6, line 56 – column 7, line 21, column 11, lines 32-67, column 15, lines 3-58 and Fig. 3.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the apparatus of Niemiec to have a controller controlling the first and second tensile stresses, as taught by Shima et al., so that the drying of the web can be better controlled.

Although Niemiec, Kurie, West et al., and Shima et al. do not explicitly teach controlling the second tensile stress to be equal to or less than 10% of said first tensile stress, one having ordinary skill in the art would recognize that the acceptable tensile stress would be highly dependent upon the type of material used in the paper web and therefore the ideal values could be best determined through routine experimentation.

Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niemiec in view of Kurie, West et al. and Shima et al., as applied to claims 1, 2, 5, 7, 8, 10-15 and 23-26 above and further in view of U.S. Patent No. 6,550,390 to Frankenberger.

Niemiec, Kurie, West et al. and Shima et al. teach all that is claimed, as in the above rejection of claims 1, 2, 5, 7, 8, 10-15 and 23-26, except that the first apparatus for separating the paper web from said press cylinder separates the paper web from said press cylinder without contact, having at least one element selected from the group consisting of blowing elements and ultrasound elements.

Frankenberger teaches an apparatus for separating a paper web from a cylinder using ultrasonic waves to separate the paper web without contact. See column 4, lines 45-60.

It would have been obvious to one having ordinary skill in the art at the time of the invention to further modify the invention of Niemiec to use the ultrasonic separation device of Frankenberger in order to be able to separate the paper web from the cylinder with less potential for damage to the paper web.

Claims 6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niemiec in view of Kurie, West et al. and Shima et al., as applied to claims 1, 2, 5, 7, 8, 10-15 and 23-26 above, and further in view of U.S. Patent No. 5,913,471 to Makosch et al.

Niemiec, Kurie, West et al. and Shima et al. teach all that is claimed, as in the above rejection of claims 1, 2, 5, 7, 8, 10-15 and 23-26, except that the second pull roll is configured or coated in an ink-repellent manner, at least in some sections.

Makosch et al. teaches a separating roll, 3a, 4a, for a printing press that is configured or coated in an ink-repellent manner. See column 3, lines 25-27.

It would have been obvious to one having ordinary skill in the art at the time of the invention to further modify the invention of Niemiec to use the ink repellant separating roll, as taught by Makosch et al., in order to prevent an ink layer from building up.

Claims 16-18 and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niemiec in view of Kurie, West et al. and Shima et al., as applied to claims 1, 2, 5, 7, 8, 10-15 and 23-26 above, and further in view of U.S. Patent No. 3,875,682 to Justus et al.

With respect to claims 16-18 and 22, Niemiec, Kurie, West et al. and Shima et al. do not teach that the drying path is composed of path parts which follow one another and are oppositely curved, is substantially meander-like, or is substantially sinusoidal.

Justus et al. teaches a drying path composed of path parts which follow one another and are oppositely curved, is substantially meander-like, or is substantially sinusoidal. See Figure 1.

It would have been obvious to one having ordinary skill in the art at the time of the invention to use the drying path of Justus et al. with the modified dryer of Niemiec in order to reduce flutter and improve drying efficiency.

With respect to claim 20, although Niemiec, Kurie, West et al., Shima et al. and Justus et al. do not explicitly teach controlling the second tensile stress such that the drying path has a radii of curvature following one another of in each case less than 200 mm, these values would appear to be specific to a given application and could be readily determined by routine experimentation.

With respect to claim 21, Niemiec teaches the use of a dryer, 8, through which a temperature of the paper web along the drying path would increase.

Response to Arguments

Applicant's arguments with respect to the newly recited plurality of nozzle bars have been considered but are moot in view of the new ground(s) of rejection.

In response to applicant's argument that the sheets of Shima are clearly not a web, it is unclear where the "sheets" of Shima are actually being cut, as the recitation in column 7 of a cutter having a blade body, 51, and a switchover motor, 52, contradicts the recitation in column 11 of a heating case, 51, and a blower case, 52, so that the numbering in the Shima patent would appear to be unreliable. Furthermore, there is no

visual evidence of the cutting device in operation in the printing unit. Even if the cutting were to take place in the printing unit, the control of the apparatus is drawn to a long enough item of printing material that it is controlled in both the printing unit and heat fixing unit at the same time and therefore it must be considered to be a web for all functional purposes. Therefore, by controlling the speed of the recording medium Shima is controlling the tensile stress of the recording medium.

In response to applicant's argument that there is no teaching, suggestion, or motivation to combine the references, the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). In this case, Shima teaches that it is advantageous to control the speed of the web as it moves through the dryer. Although the mechanism for moving the web is different from that taught by Niemiec one having ordinary skill in the art would recognize the advantages of the control taught by Shima and would be readily able to apply these advantages to the mechanism of Niemiec, as modified by the other cited references. One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jill E. Culler whose telephone number is (571)272-2159. The examiner can normally be reached on M-F 10:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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